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Figure 1.

SEQ ID NO:1

GCTCCAAAGAGACATTTTGGGGTGGCAAAATAGTCTACAGGATTCTATGGCATA
GGAGACAACCTCTCAGATAGCTCTGCAGACCTGCTCCAAAGAAGTATAGGAGAAG
CCAGGATTTATAAGAACTTTTTTGTGGGAAAATAAATGTAGTCAAACATAAAAAG
ACAACTGCTAATAACAAACAATAGACATGTCAAGATAATGACCTTAGTGCCTTTCT
ATGTGTGGAAAGACTCAAGAATCTGGGGTCATTGAACTTTTTCTTAGATATGCA
TCTTAATATCCTGGGGTCAGTATAATCCAAATGCTTCCTGTTTTCTCCATCCTAA
AGTCCCCTCCGGGTGCACTGATGGGTCCCCTCCAGTGGGCAACTGCAGTGGC
AATTGGCTTGATCTCTGTAGAACTGGAATGGTGGGCAACATTCTTTTCTTTACAG
TATCCTGAGTCTGGGAGGGGCTGTGTGGGCCAGAGCCTGNATGCAGGAGGAG
GAGGGAGTCTGATCGCTTAGTCAGCTTCTCGCTTAACCTTGAGCTGGTGGTTAT
AAGCTGGGCCCCAGGCGCCCGAGGCCAGACTCACCTCATCAGGCCCTGCTGCA
GTGGGAGCAGGGAGAGTAGCAGTGGTAGGGGCAGCATG

N = C or T at polymorphic site

SEQ ID NO:2

Forward primer:

GCTCCAAAGAGACATTTTGGGGTGGC

SEQ ID NO:3

Reverse primer:

CATGCTGCCCCTACCACTGCTACTCT

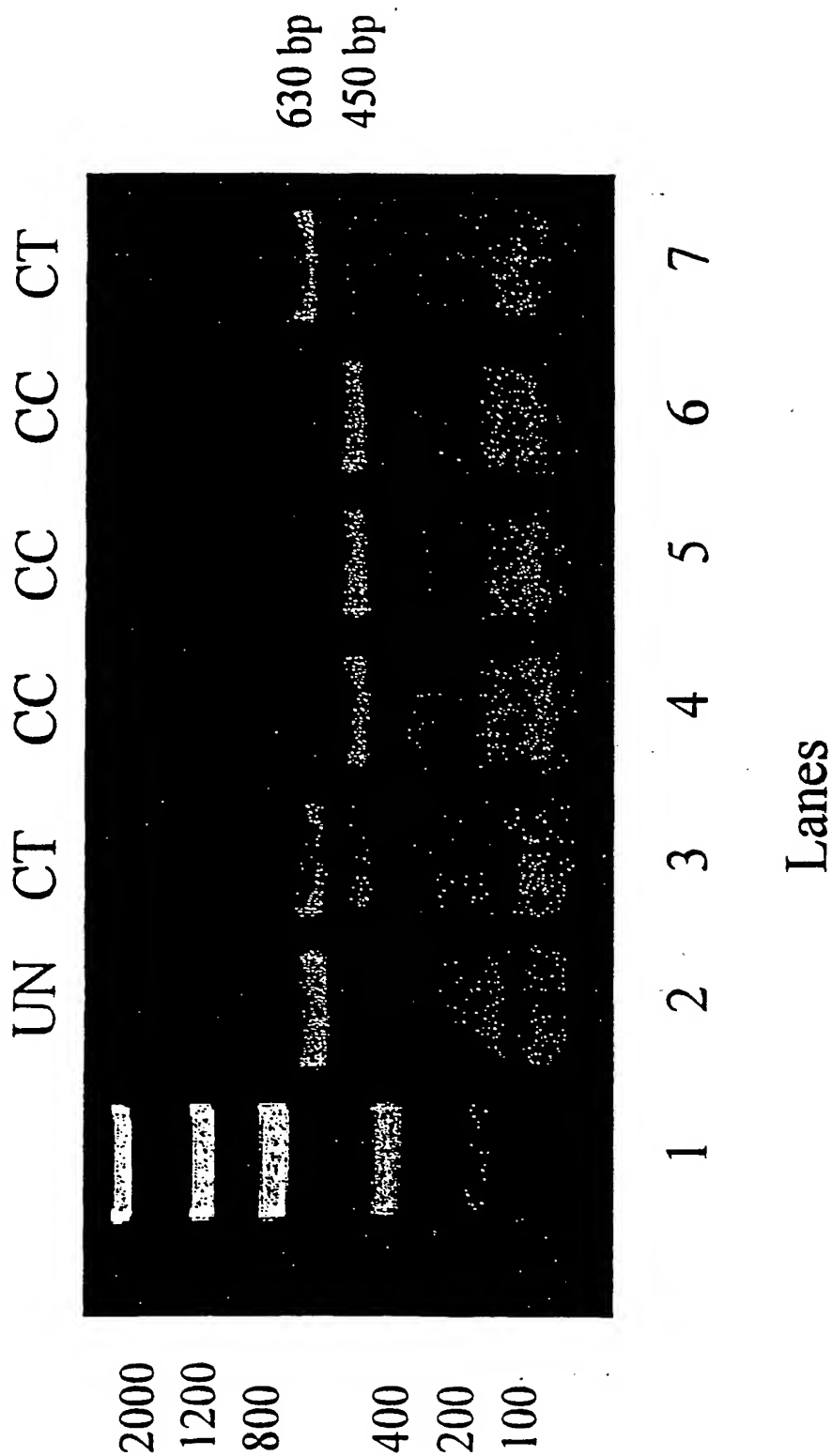
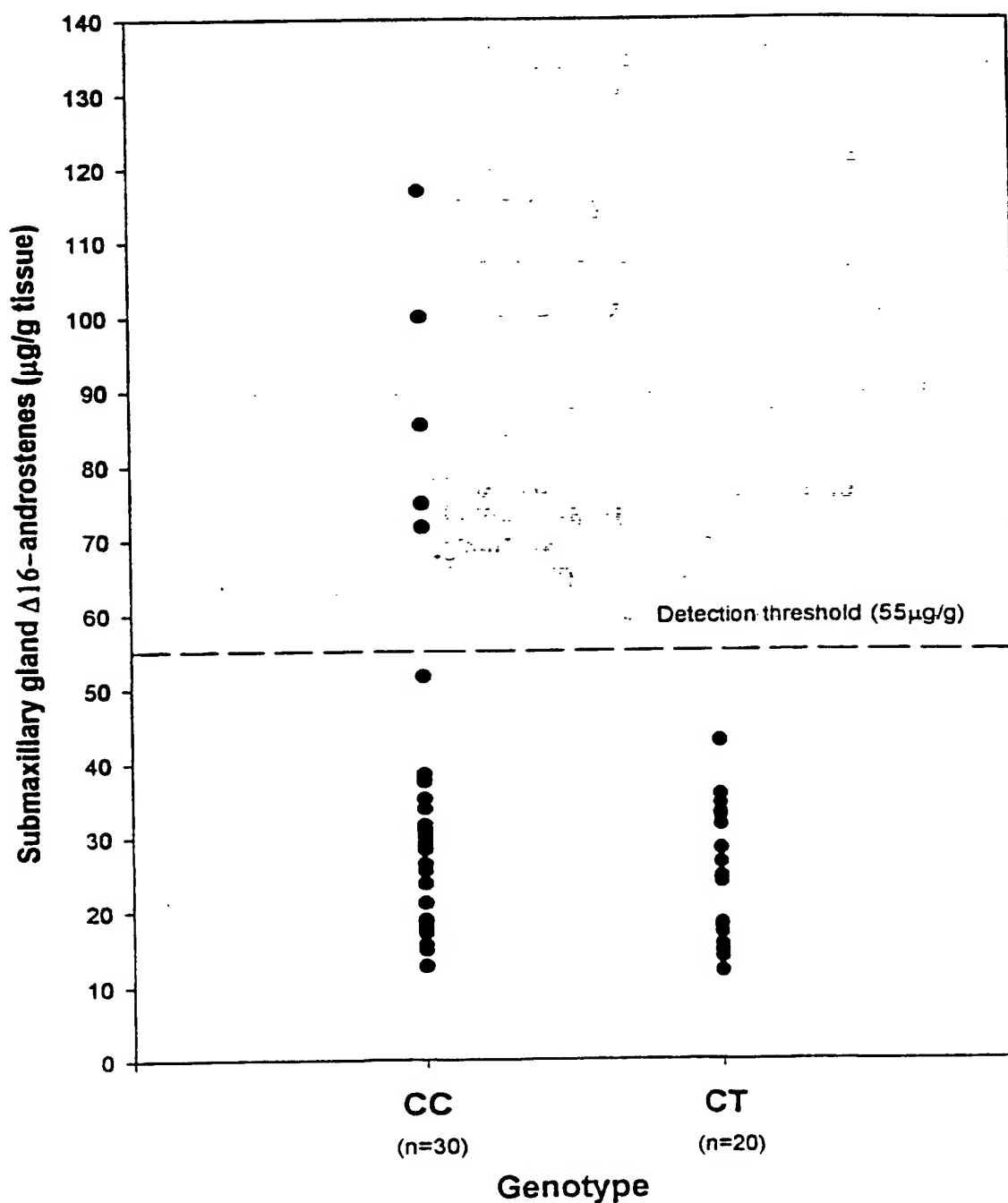


Figure 2. SphI restriction digest of porcine CYP11a1 PCR fragment

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Figure 3. Comparison of submaxillary salivary gland $\Delta 16$ -androstenes in boars possessing a CYP11a1 single nucleotide polymorphism.



Genotype

	CC	CT	P value
Rate of gain (kg BW/d)	0.76 ± .01	0.72 ± .01	.05
Carcass length (cm)	85.17 ± .38	82.96 ± .47	.001
Submaxillary salivary gland (SMG) wt (g)	92.1 ± 3.1	71.5 ± 4.9	.0001
Δ16- androstenes in SMG (μg/g)	38.7 ± 4.1	23.9 ± 5.0	.05
Relative SMG wt (g/kg BW)	0.72 ± .023	0.58 ± .027	.001
Bulbourethral gland length (mm)	128.8 ± 2.4	117.7 ± 2.9	.01
Relative bulbourethral gland wt (g/kg BW)	93.8 ± 4.0	73.5 ± 4.9	.01
Testis wt (g)	628.6 ± 27.1	530.2 ± 25.4	.05
Relative testis wt (g/kg BW)	4.92 ± .20	4.33 ± .24	.10
Serum testosterone at slaughter (ng/ml)	2.04 ± .28	1.59 ± .35	.32

Figure 4. Growth, carcass, and reproductive traits of pigs with CC or CT CYP11a1 polymorphism.

1 gcagatgtcc ctggtgatcc ctgaaacagg cccctctgttt aaattcttca gcagttagag
61 ggaagggtcaa tttttcccaa ggcttttggg ctttgattgt tttcattttt aaattatctg
121 cattctaaag agatattttg ggtggcagat tttgctctcc tacaggactt tgtctaggag
181 acggctctca ggccagctcc gacgactgtt ccaaagaagt aagggaaagc tagggtttat
241 atcaatcttt ttttttctg ggagaagggg gatgaacatg tagtcaaaca taaaaagatc
301 actgctaate ccaaacaaca gacacctcaa gtgaatgggt ttagtggttt tctatatatg
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421 gctcctctgt ccatgggatt tttctaggca agaatactgg agtgggttgc catttccttc
481 tccctgggat cttcctaacc caaggactga acccttgtct cctgcattgc aggtggattt
541 tttaccgact gagccaccag ggaagttagt tgtgcaagaa tccggggtca tggaaatttt
601 cccttagata tacatcgtat ctagggaacca gtacaatgca aatgcttctt gtttttcttc
661 atcctgaagt ctccctcaggg tgcattgagg gagggagtcc cctcaggtgg gtgaccacag
721 tggctgacgc ttgatgttgt agaactggaa tgatgggtta cattctttcg tttacagtac
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1261 gtgggtggccc cctccctgaa aggtctgccc tccccttcca ggctctggtt cacctctgac
1321 tttatttctt cctgcctggc ggtggcagga gttaggttaa tgcttcccag acagtgggtt
1381 cacttcccag ccctgaggcc tcaacagtcc ccgggtctca cacccttaga aactttgggg
1441 aggtggggag gcccaagaaa ataagccccg g

FIGURE 5

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1  ctttttttcggttgtacctttgtctctgtacagatattttgtaatatatta aaaacaaaac
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241 cgggagctcggcctttcgac caggtgcccgtgaatggag agcgggttggtctcaacctgt
301 accactttctggaaggaggga ggcttccaca acgtgcacaa catcatggcc agcaagttcc
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901 ggcgtgacca cgtgcatgct tgggatgcca tcttcacaca ggctgacaaa tgtatccaaa
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1381 gacgagacc tgaggtcttc cccaagccgg agcagttcaa ccctgagcgc tggctggtga
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1501 gtgcgcatcg cgagctggag atgcagctct tcctcatgca catcctggag aactttaaga
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FIGURE 6